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| 10/509,251 | 09/28/2004 | Norbert Grass | 32860-000786/US | 1342 |
| 30596 7590 04/05/2007 HARNESS, DICKEY & PIERCE, P.L.C. P.O.BOX 8910 RESTON, VA 20195 | | | EXAMINER SUGLO, JANET L | |
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| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/509,251

Applicant(s)

GRASS, NORBERT

Examiner

Janet Suglo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: Line 23 of claim 1 currently reads "wherein further of the software" which should be replaced with -- wherein the software --. Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. **Claims 1-28** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 9, the phrase "measured data archiving" renders the claim(s) indefinite because it is not clear how this phrase further limits the claim.

Regarding claim 11, the phrase "visualization, parameter setting, device control" renders the claim(s) indefinite because it is not clear how this phrase further limits the claim.

Regarding claims 14, 26, and 27, the word "plane" renders the claim(s) indefinite because it is not clear how this word further limits the claim.

Regarding claim 15, the phrase "control of auxiliary devices" renders the claim(s) indefinite because it is not clear how this phrase further limits the claim.

Regarding claim 17, the phrase "optimization" renders the claim(s) indefinite because it is not clear how this phrase further limits the claim.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the "or" in line two of claim one is separating "A PC arrangement for visualization, diagnosis and expert systems for monitoring and controlling" from "regulating high-voltage supply units for electrostatic filters" or whether it is separating "controlling" from "regulating." For the purposes of this office action, it will be interpreted to mean there is a choice between controlling or regulating.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 3-21, and 23-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank et al. (WO 99/60487) (hereinafter "Frank") in view of Dönig et al. (US Patent 5,471,377) (hereinafter "Dönig").

With respect to **claim 1**, Frank teaches a PC arrangement for visualization, diagnosis and expert systems for monitoring and controlling (e.g., page 6, lines 13-26) or regulating a variety of systems, comprising:

a server PC linked via a first network to the units (e.g., Figures 1 and 4-6); and client PCs forming a second network with the server PC and connected to the first network for at least one of data transmission and data exchange with the systems via the server PC (Figures 1 and 4-6), wherein

software structure for the PC arrangement is broken down into autonomous software modules which each realize at least one functionality (e.g., Page 2, lines 2-5),

wherein one of the software modules is an autonomous server software module which realizes the at least one of data transmission and data exchange with the high-voltage supply units and is implemented on the server PC connected to the systems for via the first network (e.g., page 17, lines 12-15; page 18, lines 13-27; page 19, lines 13-17); and

wherein further of the software modules are implementable on at least one of a client PC and the server PC (e.g., page 17, lines 12-15; page 18, lines 13-27; page 19, lines 13-17).

Frank does not specify tat the variety of systems includes high-voltage supply units for electrostatic filters. Dönig teaches controlling high-voltage supply units for

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electrostatic filters (Dönig: e.g., col 1, ln 11-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Frank to include controlling high-voltage supply units for electrostatic filters as done by Dönig because this control method enables optimal operation, create economic efficiency, and reduce personnel costs (Dönig: e.g., col 1, ln 45-50 and 59-63).

With respect to **claims 3, 4, 21 and 23**, Frank further teaches connecting the server with the variety of systems using an Ethernet network using TCP/IP (Frank: e.g., page 7, line 20; page 19, line 15). Frank does not specify that the variety of systems includes high-voltage supply units for electrostatic filters. Dönig teaches controlling high-voltage supply units for electrostatic filters (Dönig: e.g., col 1, ln 11-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Frank to include controlling high-voltage supply units for electrostatic filters as done by Dönig because this control method enables optimal operation, create economic efficiency, and reduce personnel costs (Dönig: e.g., col 1, ln 45-50 and 59-63).

With respect to **claim 5**, Frank further teaches the server software module implemented on the server PC is a DCOM server (Frank: e.g., page 4, lines 1-20; page 25, lines 25-30).

With respect to **claim 6**, Frank further teaches a group of the various systems has associated bus coupler (Frank: e.g., Figure 6). Frank does not specify that the variety of systems includes high-voltage supply units for electrostatic filters. Dönig

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teaches controlling high-voltage supply units for electrostatic filters (Dönig: e.g., col 1, ln 11-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Frank to include controlling high-voltage supply units for electrostatic filters as done by Dönig because this control method enables optimal operation, create economic efficiency, and reduce personnel costs (Dönig: e.g., col 1, ln 45-50 and 59-63).

With respect to **claim 7**, Frank further teaches the server software module is designed such that it can be used to categorize a large number of data from controllers of the various systems differently wherein imaging of the measured and status data from the controllers in the server software module is cyclically updatable and wherein other data is transmittable at the request of one of the client PCs (Frank: e.g., page 15, lines 19-30; page 16, lines 1-30). Frank does not specify that the variety of systems includes high-voltage supply units for electrostatic filters. Dönig teaches controlling high-voltage supply units for electrostatic filters (Dönig: e.g., col 1, ln 11-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Frank to include controlling high-voltage supply units for electrostatic filters as done by Dönig because this control method enables optimal operation, create economic efficiency, and reduce personnel costs (Dönig: e.g., col 1, ln 45-50 and 59-63).

With respect to **claims 8 and 24**, Frank further teaches a connection between the server PC which implements the server software module and the controllers is

automatically startable when data from the controllers is requested at one or more client PCs (Frank: e.g., page 13, lines 21-24; page 20, lines 12-21). Frank does not specify that the variety of systems includes high-voltage supply units for electrostatic filters. Dönig teaches controlling high-voltage supply units for electrostatic filters (Dönig: e.g., col 1, ln 11-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Frank to include controlling high-voltage supply units for electrostatic filters as done by Dönig because this control method enables optimal operation, create economic efficiency, and reduce personnel costs (Dönig: e.g., col 1, ln 45-50 and 59-63).

With respect to **claim 9**, Frank further teaches the functionality “measured data archiving” is realized by an autonomous measured data software module (Frank: e.g., page 9, lines 20-28; page 10, lines 1-7).

With respect to **claim 10**, Frank further teaches the measured data software module is in the form of at least one of a databank and data system in which measured and status data are archivable for a predeterminable period of time (Frank: e.g., page 16, lines 22-30).

With respect to **claim 11**, Frank further teaches the functionalities “visualization, parameter setting, device control” are realized by an autonomous display software module (Frank: e.g., page 17, lines 20-26).

With respect to **claims 13 and 25**, Frank further teaches that the display software module is implementable on two ore more client PCs and the server PC simultaneously on different user planes (Frank: e.g., page 11, lines 1-4; Figure 4).

With respect to **claims 14, 26, and 27**, Frank further teaches that the display software module is realizable on different user planes (Frank: e.g., page 10, lines 10-30).

With respect to **claim 15**, Frank further teaches the functionality “control of auxiliary drives” is realized by an autonomous control software module (Frank: e.g., page 1, lines 14-19; page 2, lines 2-5).

With respect to **claim 16**, Frank further teaches the control software module is adapted to match components of the devices, automatically, to different operating conditions of the electrostatic filter (Frank: e.g., page 14, lines 15-26).

With respect to **claim 17**, Frank further teaches the functionality “optimization” is realized by an autonomous optimization software module (Frank: e.g., page 2, lines 10-12).

With respect to **claim 18**, Frank teaches constant updating of the various machines (Frank: e.g., page 4, lines 29-30), but does not specify optimizing the operation of the electrostatic filter. Dönig teaches redefining and adapting setpoint values to enable optimal operation (Dönig: e.g., col 1, ln 45-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Frank to include controlling high-voltage supply units for electrostatic filters as done by Dönig because this control method enables optimal operation, create economic efficiency, and reduce personnel costs (Dönig: e.g., col 1, ln 45-50 and 59-63).

With respect to **claims 12, 19 and 28**, Frank further teaches by use of the display software module, data stored in the measured data software module is accessible, measured and status data updated in the server software module is accessible and, by use of the server software module, further data available in the controllers is directly accessible (Frank: e.g., page 17, lines 20-26).

With respect to **claim 20**, Frank further teaches that the transmission and data exchange, via the server software module, is both cyclic and event-controllable (Frank: e.g., page 7, lines 8-11; page 16, lines 22-30).

5. **Claims 2 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank et al. (WO 99/60487) (hereinafter "Frank"), in view of Dönig et al. (US Patent 5,471,377) (hereinafter "Dönig"), and further in view of Krivoshein (US Patent 6,449,715).

With respect to **claim 2**, Frank and Dönig teach parent claim 1, but do not specify that the network used is Profibus network. Krivoshein teaches using a Profibus network to connect devices (Krivoshein: e.g., col 1, ln 6-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Frank and Dönig to include the Profibus network as used by Krivoshein because the Profibus network allows smart field devices made by different manufacturers to be used together within the same process control network (Krivoshein: e.g., col 2, ln 2-6).

With respect to **claim 22**, Frank further teaches connecting the server with the client PCs using an Ethernet network using TCP/IP (Frank: e.g., page 7, line 20; page 19, line 15).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wessel et al. (US Patent 5,053,914) teaches a safety circuit for a high-voltage generator of an electrostatic filter.

Wiser, III et al. (US PGPub 2003/0012039) teaches a power supply for electrostatic air filtration.

Johnson et al. (US Patent 5,920,474) teaches a power supply for electrostatic devices.

Herklotz et al. (US Patent 4,432,061) teaches a system for controlling the voltage of an electrofilter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet Suglo whose telephone number is 571-272-8584. The examiner can normally be reached on weekdays from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Janet L Suglo
March 31, 2007

